Internship and research opportunities at NCAR

Agriculture in a Changing Climate across Scales: Broadening Participation in Research and Decision-Making
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Preparing the nation’s future scientific and engineering workforce

What majors are colleges students choosing?

Source: National Center for Education Statistics
Minority Graduate Enrollment in Atmospheric Sciences

Minority graduate enrollment in Atmospheric science 2000-2011. Data: National Science Foundation
Internships influence career choices

- Internship experience increased interest in a STEM career by 68%
- Being immersed in the “culture of science” is a deciding factor
- Research, mentoring, attending conferences had biggest impact

Research internships often increase a student’s interest in STEM careers
Source: SRI International
“We have to start working to build up an educated and professional class of Hispanics in the physical sciences.”
Access to NCAR Facilities & Science

- Opportunities in unique fields like high-performance scientific computing and instrument development
- Expose students to unique breadth of research portfolio
Impact on Science

NCAR scientists reported that mentoring:

• Increased collaboration within existing network of colleagues.

• Expanded their network

• Allowed them to do something "edgier" or more exploratory
Fresh ideas lead to better science

- Dereka Carroll-Smith
- Graduate Student at Purdue University
- NSF Graduate Fellowship
Frances Roberts-Gregory

Ethnobotanical Conversations Along the Bayou
Sandra Maina
Protecting South Terrebonne Parish, Louisiana through the development of *Vanishing Points*

An iPhone application motivating community and national involvement in coastal restoration
Many paths lead to NCAR....
Research experience for undergraduates
Summer internships in many disciplines!

- Climate, weather, related environmental and social science
- Computer science and applied mathematics
- Engineering & technology for observing systems
- The Sun-Earth connection

[www2.ucar.edu/opportunities/undergrad](http://www2.ucar.edu/opportunities/undergrad)
SOARS – Significant Opportunities in Atmospheric Research and Science

- Research experience
- Multidimensional mentoring
- A supportive community
- Professional development
  - leadership and communication
- Extensive financial support
- Multi-year experience

www.soars.ucar.edu
Undergraduate Leadership Workshop

• Demonstrates exciting career paths accomplished by higher education

• Cohorts of 20 students/year since 2000

• One week in June

“a high-impact, immersive leadership training experience”
Opportunities for graduate students

**ASP Graduate Student Visitor Program**

**NCAR Advanced Study Program**

- Funding for graduate students to spend 3-12 months at NCAR conducting research for their thesis
- Funding available for 1-2 visits by faculty advisor

- Paula Fisher: 303-497-1328, paulad@ucar.edu
Opportunities for Postdocs

**ASP Postdoctoral Fellowships**
*NCAR Advanced Study Program*

- Two-year fellowships at NCAR
- Academic freedom with mentorship

**Project-specific postdoctoral employment in science and technology**
*UCAR Human Resources*

- Seeking postdocs for specific projects at NCAR & UCAR

**Postdocs Applying Climate Expertise (PACE) Postdoctoral Fellowships**
*UCAR Visiting Scientist Programs*

- Explore the interface between climate science and its applications

**NOAA Climate and Global Change (C&GC) Postdoctoral Fellowships**
*UCAR Visiting Scientist Programs*

- Strengthen understanding of climate variability and change

[http://www2.ucar.edu/opportunities/postdocs](http://www2.ucar.edu/opportunities/postdocs)
Opportunities for faculty

• Visits of several weeks to several months
• Partial or full support for travel and living expenses may be available.
• Visitors must be sponsored by a NCAR staff member

Faculty Fellowship Program

– Funding for faculty and their student(s) to spend 3-12 months at NCAR. Emphasis on member universities
– Funding for NCAR scientific staff to spend 3-12 months at a U.S. University

• Many NCAR labs have visitor programs for faculty, find a summary at http://www2.ucar.edu/opportunities/professionals
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